

**Amendments to the Claims:**

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A document management system, comprising:
  - a plurality of document repositories for storing documents;
  - a document notification and delivery service (DNDS) for detecting documents pertaining to subjects of interest that are stored in the document repositories;
  - a plurality of notification targets for subscribing to subjects at the DNDS to receive alerts when documents are identified that pertain to one or more subscribed subjects of interest; and
  - a plurality of workflow modules, that can be added or removed, subscribing to the DNDS to receive documents identified that pertain to one or more subscribed subjects of interest; at least two workflow modules automatically producing one or more documents that are published to one or more of the document repositories without user intervention;wherein a first workflow module publishes to one of the document repositories a first document which is detected by the DNDS and which pertains to at least one subscribed subject of interest of a second workflow module;
- subsequent to the publication of the first document by the DNDS to the one of the document repositories, the DNDS processes the first document and then delivers the first document to the second workflow module that does not require the first workflow module to produce a second document;
- the DNDS ~~includes~~ includes:
  - ~~a subject refinement module for monitoring document notifications and delivery requests associated with the document notifications to provide subject refinement data, and using the~~

~~subject refinement data to refine subjects in a subject directory for representing subjects of the plurality of documents in the plurality of document repositories based on subject matter of content of the documents;~~

\_\_\_\_\_ a plurality of document repositories, each storing a plurality of documents;

\_\_\_\_\_ a subject directory for representing subjects of the plurality of documents in the plurality of document repositories;

\_\_\_\_\_ a profile directory for representing a plurality of users accounts, each user account subscribing to at least one subject of interest;

\_\_\_\_\_ a subject refinement module for:

\_\_\_\_\_ monitoring document notifications and delivery requests associated with the document notifications to provide subject refinement data;

\_\_\_\_\_ using the subject refinement data to refine subjects in the subject directory;

\_\_\_\_\_ deleting a subject in the subject directory based on access activity of a subject; and

\_\_\_\_\_ adding a subject to the subject directory based on access activity of a cluster of sources within a subject; and

\_\_\_\_\_ a failure recovery module for:

\_\_\_\_\_ recording component failure information;

\_\_\_\_\_ assigning each of the document repositories according to one of a plurality of operating behaviors using the component failure information; and

\_\_\_\_\_ determining appropriate action to take in response to component identified failures using the operating behavior assigned to the document repository to which the component is associated;

the plurality of operating behaviors indicate a degree of reliability;

the appropriate action is predefined in a profile directory of the user accounts;

and

one of the at least two workflow modules is associated with a user that performs one or more tasks to produce one or more documents that are managed by a workflow module according to subject matter described in the one or more documents.

2. (Canceled)

3. (Previously Presented) The document management system according to claim 1, wherein one of the plurality of workflow modules is one of a web service and a process associated with a user that performs one or more tasks to produce the one or more documents.

4. (Canceled)

5. (Previously Presented) The document management system according to claim 1, wherein the DNDS processes the first document by performing one of summarization, enrichment, and translation.

6. (Previously Presented) The document management system according to claim 1, wherein the DNDS further comprises means for:

(a) monitoring events and attributes concerning detected documents for which notification or delivery are performed; and

(b) using the monitored events and attributes to identify ones of the detected documents as highly rated documents for notification to users not originally subscribed to the subject of interest for which the notification or delivery is performed, the highly rated documents having been requested for delivery by at least a minimum number of predetermined users.

7. (Canceled)

8. (Previously Presented) The document management system according to claim 1, wherein the DNDS further comprises:

a profile directory for representing a plurality of users accounts, with each user account subscribing to at least one subject of interest; and

a profile refinement module for refining user preferences for document notification and delivery.

9. (Canceled)

10. (Currently Amended) A method for operating a document management system, comprising:

storing a plurality of documents in one or more a plurality of document repositories;

detecting documents pertaining to subjects of interest based on subject matter of content of the documents that are stored in the document repositories with a document notification and delivery service (DNDS); ~~and~~

subscribing to the DNDS to receive documents identified that pertain to one or more subscribed subjects of interest with a plurality of workflow modules that can be added or removed;

representing subjects of the plurality of documents in the plurality of document repositories with a subject directory;

representing a plurality of user accounts, each user account subscribing to at least one subject of interest with a profile directory;

monitoring document notifications and delivery requests associated with the document notifications to provide subject refinement data;

using the subject refinement data to refine subjects in the subject directory;  
deleting a subject in the subject directory based on access activity of a subject;  
adding a subject to the subject directory based on access activity of a cluster of  
sources within a subject;  
recording component failure information;  
assigning each of the document repositories according to one of a plurality of  
operating behaviors using the component failure information; and  
determining appropriate action to take in response to component identified  
failures using the operating behavior assigned to the document repository to which the  
component is associated;  
wherein the plurality of operating behaviors indicate a degree of reliability;  
wherein the appropriate action is predefined in a profile directory of the user  
accounts;

wherein (i) at least two workflow modules automatically produce one or more documents that are published to one or more of the document repositories without user intervention, (ii) a first workflow module publishes to one of the document repositories a first document which is detected by the DNDS and which pertains to at least one subscribed subject of interest of a second workflow module, and (iii) subsequent to the publication of the first document by the DNDS to the one of the document repositories, the DNDS delivers the first document to the second workflow module that does not require the first workflow module to produce a second document; and

wherein one of the at least two workflow modules is associated with a user that performs one or more tasks to produce one or more documents that are managed by a workflow module according to subject matter described in the one or more documents.

11. (Previously Presented) The method according to claim 10, further comprising subscribing with notification targets to subjects at the DNDS to receive alerts when documents are identified that pertain to one or more subscribed subjects of interest.

12. (Previously Presented) The method according to claim 10, wherein one of the plurality of workflow modules is one of a web service and a process associated with a user that performs one or more tasks to produce the one or more documents.

13. (Original) The method according to claim 10, further comprising processing the first document at the DNDS before delivering it to the second workflow module.

14. (Original) The method according to claim 13, wherein said processing comprises one of summarization, enrichment, and translation.

15. (Previously Presented) The method according to claim 10, wherein the method further comprises at the DNDS:

(a) monitoring events and attributes concerning detected documents for which notification or delivery are performed; and

(b) using the monitored events and attributes to identify ones of the detected documents as highly rated documents for notification to users not originally subscribed to the subject of interest for which the notification or delivery is performed, the highly rated documents having been requested for delivery by at least a minimum number of predetermined users.

16. (Canceled)

17. (Previously Presented) The method according to claim 10, further comprising:  
storing a plurality of documents at a plurality of document repositories;  
representing subjects of the plurality of documents in the plurality of document repositories with a subject directory;

representing a plurality of users accounts with a profile directory, where each user account subscribing to at least one subject of interest;

monitoring frequency of user delivery requests for document notifications concerning each subscribed subject of interest to provide profile refinement data; and

using the profile refinement data to refine user preferences for document notification and delivery.

18. (Canceled)

19. (Currently Amended) An article of manufacture for operating a document management system, the article of manufacture comprising computer usable hardware media including computer readable instructions embedded therein that causes a computer to perform a method, wherein the method comprises:

storing a plurality of documents in ~~one or more~~ a plurality of document repositories;

detecting documents pertaining to subjects of interest based on subject matter of content of the documents that are stored in the document repositories with a document notification and delivery service (DNDS); ~~and~~

subscribing to the DNDS to receive documents identified that pertain to one or more subscribed subjects of interest with a plurality of workflow modules that can be added or removed;

representing subjects of the plurality of documents in the plurality of document repositories with a subject directory;

representing a plurality of users accounts, each user account subscribing to at least one subject of interest with a profile directory;

monitoring document notifications and delivery requests associated with the document notifications to provide subject refinement data;

using the subject refinement data to refine subjects in the subject directory;

deleting a subject in the subject directory based on access activity of a subject;

adding a subject to the subject directory based on access activity of a cluster of sources within a subject;

recording component failure information;

assigning each of the document repositories according to one of a plurality of operating behaviors using the component failure information; and

determining appropriate action to take in response to component identified failures using the operating behavior assigned to the document repository to which the component is associated;

wherein the plurality of operating behaviors indicate a degree of reliability;

wherein the appropriate action is predefined in a profile directory of the user accounts;

wherein (i) at least two workflow modules automatically produce one or more documents that are published to one or more of the document repositories without user intervention, (ii) a first workflow module publishes to one of the document repositories a first document which is detected by the DNDS and which pertains to at least one subscribed subject of interest of a second workflow module, and (iii) subsequent to the publication of the first document by the DNDS to the one of the document repositories, the DNDS delivers the first document to the second workflow module that does not require the first workflow module to produce a second document; and

wherein one of the at least two workflow modules is associated with a user that performs one or more tasks to produce one or more documents that are managed by a workflow module according subject matter described in the one or more documents.

20. (Previously Presented) The article of manufacture according to claim 19, wherein the method further comprises subscribing with notification targets to subjects at the DNDS to receive alerts when documents are identified that pertain to one or more subscribed subjects of interest.

21. (Previously Presented) The document management system according to claim 1, wherein the documents include an electronic tag located on each document.